

HONOLULU RAIL TRANSIT PROJECT

SYSTEM RESOURCE GUIDE



The Honolulu Authority for Rapid Transportation (HART) is building America's first, fully-automated driverless urban light metro system along a 20-mile corridor which will link key employment centers, visitor destinations and residential communities along the southern shore of the island of Oahu.

WHAT IS THE HONOLULU RAIL TRANSIT PROJECT?

- The project will connect West Oahu with downtown Honolulu and Ala Moana Center via Daniel K. Inouye International Airport.
- Travel time from one end to the other will be 42 minutes, which will include the time spent at the stations for loading and unloading of passengers to the trains.
- The system features modern electric steel-wheel trains, each able to carry hundreds of passengers. Future extensions could serve other parts of West Oahu, Salt Lake, University of Hawaii-Manoa, and Waikiki.
- The rail system will provide passengers with a congestion-free commute.

WHAT ARE THE BENEFITS?

- Rail transit will be a fast, affordable, and reliable alternative to driving for many commuters.
- By 2030, more than 120,000 passenger trips every weekday are forecast for the rail system.
- Rail construction has created thousands of jobs, and Transit-Oriented Development around rail stations will infuse our economy with billions of dollars after the rail project is completed.



FACTS AND FIGURES



SYSTEM

- The 20-mile rail system will include 21 stations and will be the heart of Oahu's multimodal public transportation system.
- Plans are to provide initial passenger service between Kapolei and Aloha Stadium in late 2020.
- Rail will be fully integrated with the city bus system. A single system-wide transit smart card will be used by passengers to move seamlessly between TheBus and the rail system.
- The rail transit system will link the growing region of West Oahu with Daniel K. Inouye International Airport, downtown Honolulu and Ala Moana Center.
- Educational institutions along the alignment include UH-West Oahu, Leeward Community College, Honolulu Community College and Hawaii Pacific University. An extension to UH-Manoa can be built at a later date.
- Rail transit will be powered by electricity and benefit from the most promising advances in alternative energy sources, such as solar, wind and biofuels.
- The rail system will be operated from the 43-acre LEED certified Rail Operations Center (ROC), which is also where the train fleet will undergo maintenance. The ROC is located between Waipahu High School and Leeward Community College.

STATIONS

- Honolulu's rail system will include stations at a number of key destinations and employment centers, including the Daniel K. Inouye International Airport, Joint Base Pearl Harbor-Hickam, Pearlridge Center, the Kalihi Transit Center, and Ala Moana Center

- Stations will include stairs, escalators and elevators
- Roving attendants
- Restrooms in paid fare areas
- Bicycle racks
- Ticket vending machines
- Closed-circuit TV security cameras
- Interior and exterior safety lighting
- Platform safety gates
- Fully compliant with the Americans with Disabilities Act of 1990

STATION ACCESS

- Walk, bicycle, TheBus, private bus/shuttle, TheHandi-Van, and personal vehicle drop-off and pick-up
- Feeder city bus service to and from the surrounding community to nearby stations
- Four new bus transit centers located at the UH-West Oahu, West Loch, Pearl Highlands, and Aloha Stadium stations
- Four park-and-ride lots located at the East Kapolei, UH-West Oahu, Pearl Highlands, and Aloha Stadium stations, with the potential for additional sites in the future
- A dedicated access ramp from the H-2 Freeway directly into the Pearl Highlands station's park-and-ride and bus transit center

RAIL VEHICLES

- Fully-automated, driverless trains
- A four-car train has a maximum capacity of 800 passengers, which is equivalent to 10 city buses
- 188 seats per four-car train; priority seating for senior citizens and those with disabilities

- Trains will be ADA compliant with priority areas onboard for wheelchairs
- Air-conditioned vehicles
- Total fleet of 20 four-car trains, with 17 trains in operation during peak periods and 8 trains during non-peak periods
- Bicycles, surfboards, wheel chairs, strollers, coolers, and luggage will be allowed on trains and regulated by policy
- Open gangway between train cars for easy access
- Audible announcements
- Visual announcement boards
- Closed-circuit TV security cameras and call boxes will be installed on board all train vehicles
- Average vehicle speed, including stops and passenger boardings, will be 30 mph with a top speed of 55 mph
- Free Wi-Fi connectivity

OPERATING SCHEDULE

- Trains will operate 20 hours per day from 4 a.m. to midnight
- Trains will arrive at stations about every five minutes during peak travel times and about every 11 minutes during non-peak hours

RIDERSHIP

- In 2030, it's estimated that 121,600 passenger trips will be taken every weekday

** Information subject to change.*

RAIL STATIONS

The Honolulu Rail system will feature 21 stations along a 20-mile long corridor on the south shore of Oahu. The design of each station's entryway will be unique to the community it serves. Stations will include architectural design elements that honor the area's history and culture.

You will see HART naming its 21 stations with Hawaiian names – a process that honors forgotten place names, historic events and significant sites in the Hawaiian culture. A group of Hawaiian language experts, elders, cultural practitioners, and community leaders has been assembled to recommend for adoption culturally appropriate Hawaiian place names for the stations.



KEONE 'AE (UH WEST OAHU)
Kualaka'i Parkway (North-South Road)
and UH West Oahu Entrance (aka Campus Drive)



HONOILIULI (HO 'OPILI)
At the future planned intersection of minor
East-West Street approximately
300 feet from Farrington Highway



HŌ 'AE 'AE (WEST LOCH)
Farrington Highway and Leoku Street



KUALAKA '1 (EAST KAPOLEI)
Kualaka'i Parkway (North-South Road)
and Keahumoa Parkway (next to the Kroc Center)



POUHALA (WAIPAHU TRANSIT CENTER)
Farrington Highway and Mokuola Street



HĀLAULANI (LEEWARD COMMUNITY COLLEGE)
Leeward Community College campus parking lot



WAIAWA (PEARL HIGHLANDS)
Kamehameha Highway and Kuaia Street



KALAUAO (PEARLRIDGE)
Kamehameha Highway and Kaonohi Street



HĀLAWA (ALOHA STADIUM)
Kamehameha Highway and Salt Lake Boulevard



PEARL HARBOR NAVAL BASE
Kamehameha Highway and Radford Drive



DANIEL K. INOUE INTERNATIONAL AIRPORT
Near the existing lei stands on Aolele Street between
the International and domestic parking structures



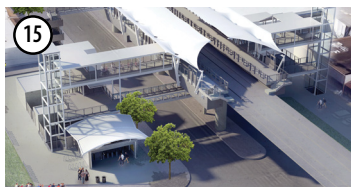
LAGOON DRIVE
Ualena Street and Lagoon Drive



MIDDLE STREET
Kamehameha Highway and Middle Street



KALIHI
Dillingham Boulevard and Mokauea Street



KAPALAMA
Dillingham Boulevard and Kokea Street



IWILEI
Dillingham Boulevard and Kaaahi Street



CHINATOWN
Nimitz Highway and Kekaulike Street



DOWNTOWN
Nimitz Highway and Bishop Street



CIVIC CENTER
Halekauwila Street and South Street



KAKAAKO
Halekauwila Street and Ward Avenue



ALA MOANA CENTER
Located at Kona Street (mauka of
Ala Moana Center) near Kona Iki Street

TRAIN VEHICLES



A FIRST LOOK AT OAHU'S FUTURE TRAIN

Honolulu's modern light-metro train cars are manufactured by Hitachi Rail Italy and come to Honolulu from the company's final assembly plant in Pittsburg, California. The trains will undergo months of testing before they are certified safe for passenger use. They will provide passengers with a fast, reliable, and comfortable ride to their destination.

VEHICLE FLEET

- 80 individual train cars will make up the Honolulu fleet of 20 four-car trains

VEHICLE DIMENSIONS

- Width: 10'
- Length: 64'
- Height: 14'

NUMBER OF SEATS

- 188 seats per four-car train

PASSENGER CAPACITY

- One four-car train can carry a maximum up to 800 passengers

VEHICLE SPEED

- 30 mph average vehicle speed
- 55 mph top speed

FARE

- Will be set by the members of the city's Rate Commission
- HOLO card will provide for seamless travel on both TheBus and the rail system

OPERATING SCHEDULE

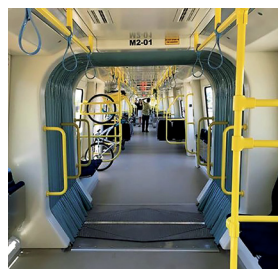
- Trains will operate 20 hours a day from 4 a.m. to midnight
- Trains will arrive at stations about every five minutes during peak travel times and about every 11 minutes during non-peak times

FEATURES

- Fully automated, driverless system
- Air conditioned vehicles
- Free Wi-Fi
- Closed-circuit TV security cameras
- Emergency call boxes
- Audio alerts
- Video display boards
- Ample space for bicycles, surfboards, wheelchairs, strollers, coolers, and luggage
- Fully compliant with the Americans with Disabilities Act of 1990 (ADA)
- Open gangways between vehicles for easy access between rail cars



Luggage Racks



Open Gangways



Surf Board Racks



Bike Racks

ENERGIZED TRACK



HART and its contractor Ansaldo Honolulu Joint Venture have energized the contact rail, or “third rail” on the tracks with 750 volts of electricity at the Rail Operations Center yard in Waipahu.



Third rail is a method of providing electric power to a train. Third rail systems are always supplied from direct current electricity.

Third rail systems present electric shock hazards

and are considered extremely dangerous. A very high current must be used to transfer adequate power.

The electrified rail threatens electrocution of anyone wandering or falling onto the tracks.

Trains in the Rail Operations Center are fully automated and will operate unmanned. The trains may start and stop suddenly or switch direction, making the rail yard and the nearly 5 miles of track there dangerous and unsafe for those without the proper safety training.

Never put anything on the tracks or throw objects into the rail yard.

Stay out of the Rail Operations Center and Stay Alive.

IMPORTANT NOTES

- There is absolutely no access to rail tracks without expressed consent from Ansaldo Honolulu JV
- Always consider all rail tracks as **LIVE** at **ALL TIMES**
- Respect and obey all safety, caution and warning signs
- No stepping or sitting on 3rd rail cover boards
- No placing of conductive materials on or near 3rd rail

DANGER! THINK TWICE, TRACKS ARE FOR TRAINS.



KEEP OUT
of HART's Rail
Operations Center.
EXTREMELY DANGEROUS!

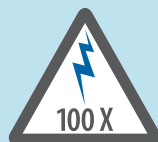


ELECTRICITY
from the third rail is so
strong if you touch it,
you may be killed.

THE THIRD RAIL
has electricity flowing
through it at all times.



RAIL ELECTRICITY
is 100 times more
powerful than electricity
in your home.



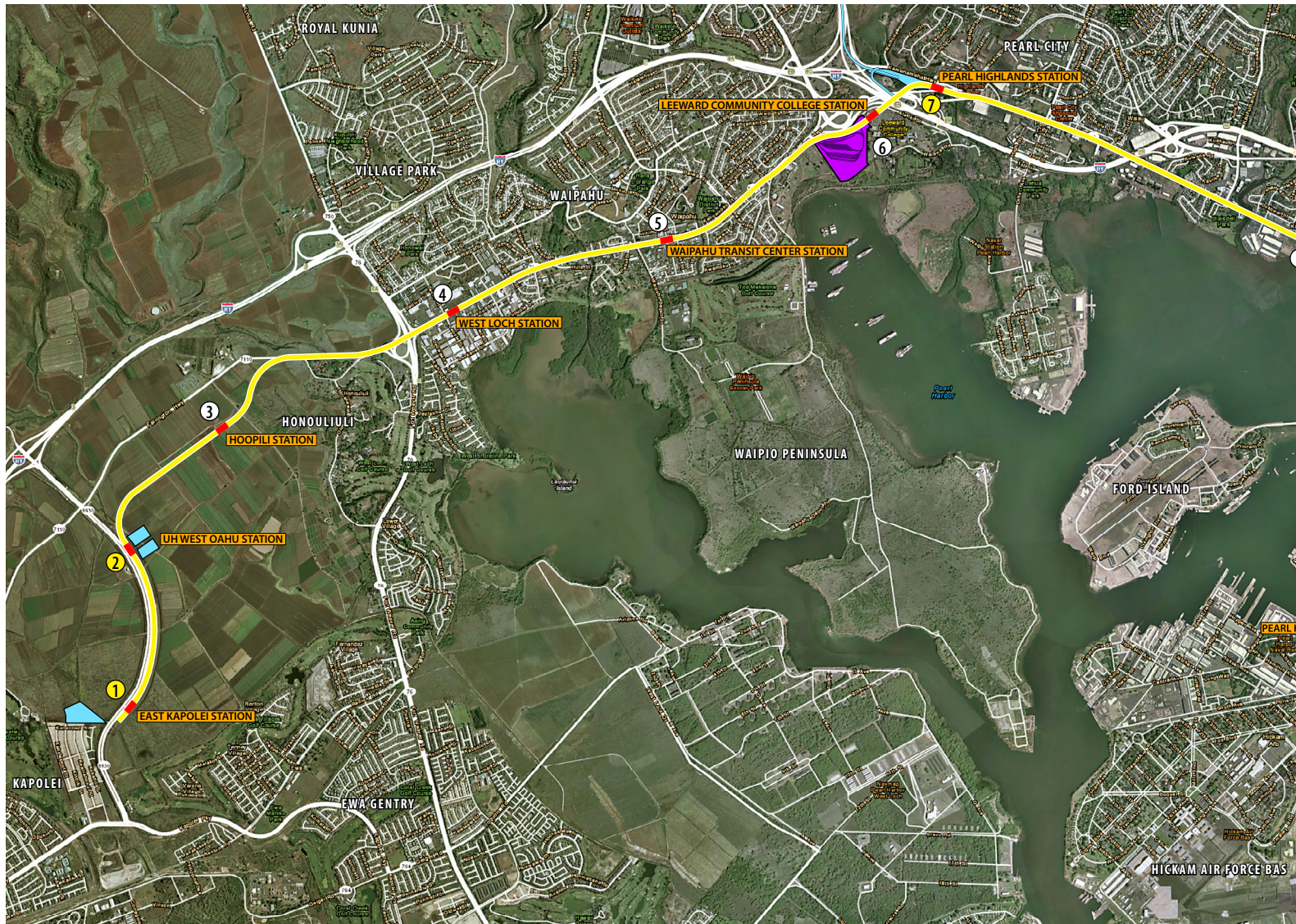
DO NOT
cut or hop fences.
They are there
to protect you.



TRAINS
move any time in any
direction without warning.

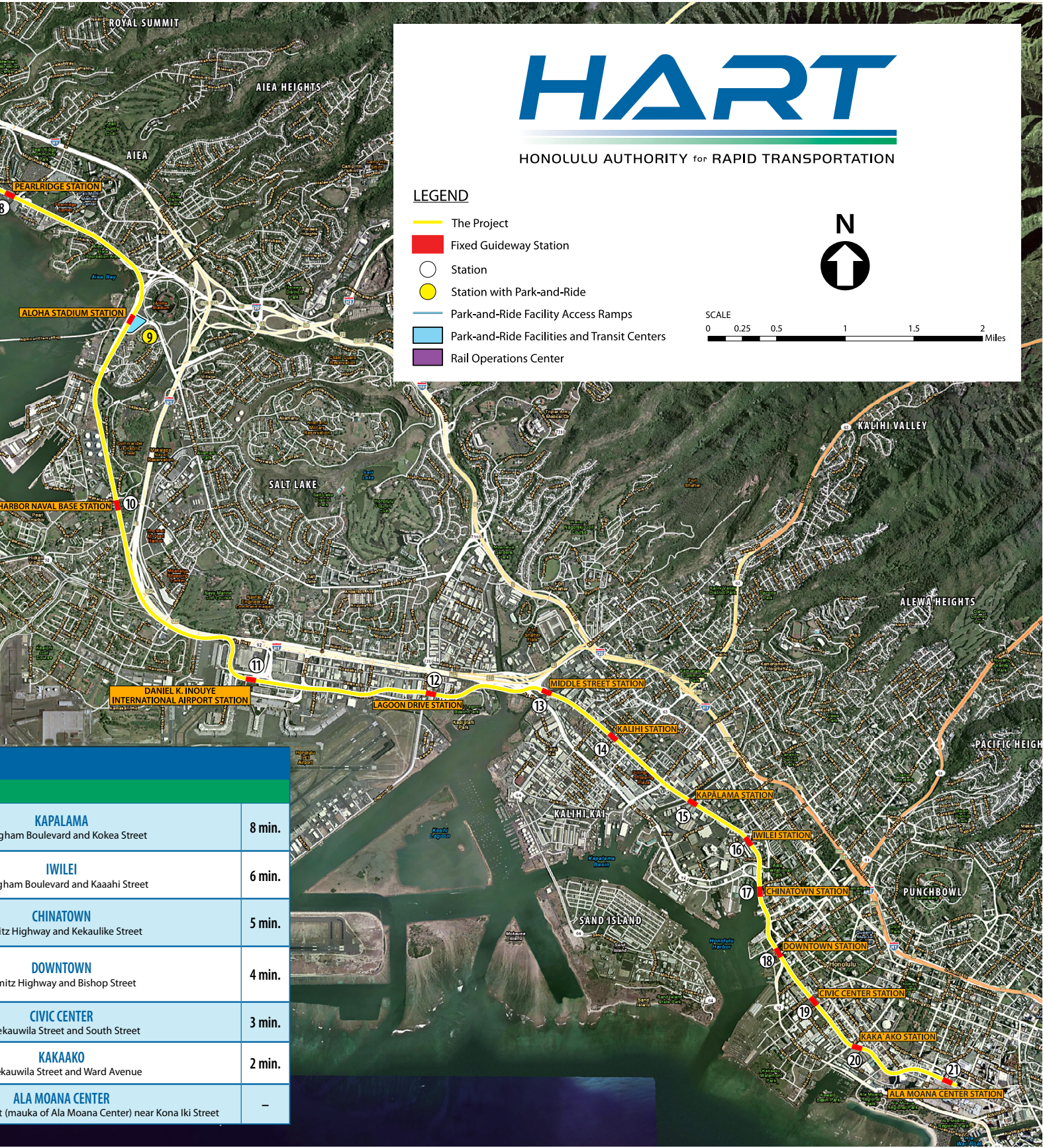


ALIGNMENT MAP & TRAVEL TIMES



RAIL TRAVEL TIMES TO ALA MOANA CENTER

		FROM			
1	KUALAKA 'I (EAST KAPOLEI) Kualaka'i Parkway (North-South Road) and Keahumoa Parkway (next to the Kroc Center)	42 min.	8	15	Dillingham Boulevard and Mokuauia Street
2	KEONE 'AE (UH WEST OAHU) Kualaka'i Parkway (North-South Road) and UH West Oahu Entrance (aka Campus Drive)	40 min.	9	16	Dillingham Boulevard and Mokuauia Street
3	HONOULIULI (HO'OPILI) At the future planned intersection of minor East-West Street approximately 300 feet south of Farrington Highway	36 min.	10	17	Nimitz Freeway and Hickam Avenue
4	HŌ 'AE 'AE (WEST LOCH) Farrington Highway and Leoku Street	34 min.	11	18	Nimitz Freeway and Hickam Avenue
5	POUHALA (WAIPAHO TRANSIT CENTER) Farrington Highway and Mokuola Street	31 min.	12	19	Haleiwa Road and Haleiwa Avenue
6	HĀLAULANI (LEEWARD COMMUNITY COLLEGE) Leeward Community College campus parking lot	29 min.	13	20	Haleiwa Road and Haleiwa Avenue
7	WAIAWA (PEARL HIGHLANDS) Kamehameha Highway and Kula Street	28 min.	14	21	Located at Kona Street

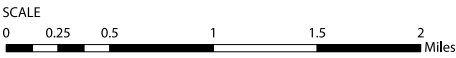


HART

HONOLULU AUTHORITY for RAPID TRANSPORTATION

LEGEND

- The Project
- Fixed Guideway Station
- Station
- Station with Park-and-Ride
- Park-and-Ride Facility Access Ramps
- Park-and-Ride Facilities and Transit Centers
- Rail Operations Center



KAPALAMA	8 min.
Bingham Boulevard and Kokea Street	
IWILEI	6 min.
Bingham Boulevard and Kaaahi Street	
CHINATOWN	5 min.
Mittz Highway and Kekaulike Street	
DOWNTOWN	4 min.
Mittz Highway and Bishop Street	
CIVIC CENTER	3 min.
Kekauwila Street and South Street	
KAKAAKO	2 min.
Kekauwila Street and Ward Avenue	
ALA MOANA CENTER	—
East (mauka of Ala Moana Center) near Kona Iki Street	



RAIL STATION ACCESSIBILITY

HART places a high priority on meeting and exceeding the requirements of the Americans with Disabilities Act (ADA) and is working to make Honolulu's rail system readily accessible to and usable by persons with disabilities.

FOR CUSTOMERS WITH VISUAL IMPAIRMENTS

- Braille and/or raised letters in large-print signage
- Audio announcements
- Texture changes and tactile platform edges at gate openings

FOR CUSTOMERS WITH HEARING IMPAIRMENTS

- Electronic message signs
- Directional and informational signage
- Universal symbols and signs with text labels
- Visual rail system and neighborhood maps

FOR CUSTOMERS WITH MOBILITY IMPAIRMENTS

- Elevator access from ground level to each elevated passenger platform level
- Large-cab elevators with glass walls for security
- Escalators at major stations
- Handrails on stairways
- Concourse level that provides convenient access to boarding platforms and allows safe crossing over the streets below
- Level boarding (no ramp or space) between the platform and the train's entry door
- Designated areas in train cars reserved for wheelchair users
- Priority seats for senior citizens and those with disabilities

ADDITIONAL FEATURES

- Conveniently located accessible ticket-vending machines
- Designated on-board priority seating areas reserved for senior citizens and persons with disabilities
- Connections with TheBus, TheHandi-Van and passenger vehicle drop-off and pick-up points
- Ability to use Holo Card on rail, TheBus and TheHandi-Van
- Safety barriers on platforms
- Multiple closed-circuit TV security cameras for monitoring and security for passenger safety



CCTV Cameras



Priority Seats for Seniors & Passengers with Disabilities



Security Cameras

RAIL OPERATIONS CENTER



WHAT IS THE RAIL OPERATIONS CENTER (ROC)?

The Rail Operations Center (ROC) is a 43-acre site off Farrington Highway between Leeward Community College and Waipahu High School. It includes four major structures:

- Operations & Servicing Building
- Maintenance of Way Building
- Train Wash Facility
- Wheel Truing Building

The Rail Operations Center will provide for all periodic maintenance, inspections and repairs of the transit vehicles to keep them operating safely and efficiently. It will also provide storage for train vehicles when they are not in operation, and will include a track to test vehicles prior to operation.

OPERATION & SERVICING BUILDING (OSB)

This building will contain the Operations and Control Center (OCC) as well as primary vehicle maintenance, inspection and repair facilities.

From the OCC, staff will monitor and control the rail transit vehicles as they move through the system, stations, and the rail operations and control center yard.

MAINTENANCE OF WAY BUILDING (MOW)

This building will house the specialized equipment used to inspect and repair the guideway, stations and track.

Teams will be sent out on a regular basis when the rail system is not operating to perform routine maintenance and to inspect the guideway.

TRAIN WASH FACILITY (TWF)

An automated train wash facility will be used to clean the exterior of the rail vehicles on a regular basis. Wash water will be recycled to minimize waste.

WHEEL TRUING BUILDING (WTB)

This facility will include specialized equipment to maintain vehicle wheels.

IS THE ROC ENVIRONMENTALLY-FRIENDLY?

The facility has obtained Leadership in Energy and Environmental Design (LEED) Silver Certification. Sustainable features include, natural lighting and ventilation in buildings; alternative transportation facilities; construction waste diversion and recycled construction materials where possible; and water-efficient landscaping. Photovoltaics are also planned for the facility.

ROC FACTS & FIGURES

- 43-acre site
- 250,000 cubic yards of material moved and graded in four months
- 40,000 ft. of utility lines laid
- More than 10,000 cubic yards of concrete poured - equivalent to 1,000 truck loads of concrete
- 1,600 tons of structural steel frames utilized

HART BUSINESS OUTREACH PROGRAMS

The Honolulu Authority for Rapid Transportation is committed to assisting businesses along the rail transit alignment and its construction areas through several outreach and marketing programs. In addition, HART has secured a number of strategic partners and resources to help businesses with a variety of needs – everything from business plans and financial consultations to hands-on learning workshops to assist with building your business.



- **HART BUSINESS ALLIANCE PROGRAM**
Businesses along the alignment meet regularly with HART staff and receive email notices about construction activities and traffic updates. The program offers free workshops and promotional opportunities to assist you throughout the construction process. Sign up is easy, just email us at info@HonoluluTransit.org or visit www.HartBusinessAlliance.com.
- **HART SMALL BUSINESS PROFILES ONLINE**
Businesses that participate in HART's Shop & Dine on the Line program will have the opportunity to be profiled in a monthly social media video featuring establishments along the alignment.



- **HART SMALL BUSINESS WEBSITE**
HART provides businesses along the 20-mile alignment a free web page to promote their establishment to potential customers. The web page is customized to each businesses information and includes space for a photo

of the business and logo. A unique web page address is provided to each business to market themselves to customers.

- **HART "SHOP & DINE ON THE LINE" ELECTRONIC OFFER PROGRAM**
Businesses along the alignment can join HART's Shop & Dine on the Line electronic offer program to attract additional customers during construction. This free program will place your establishment's special discounts in the hands of thousands of new customers islandwide.



- **STRATEGIC PARTNERSHIPS & PROMOTIONAL EVENTS**
Promotional events may be planned for businesses. Special promotions and community events with strategic partners may be presented to encourage customers to patronize businesses along the alignment.
- **STRATEGIC BUSINESS RESOURCES**
HART has secured a number of partnerships with local and national non-profit organizations that are committed to assisting businesses in need of business planning, financial analysis, marketing strategy, small business loan programs, and more. Some of HART's partners include the Mayor's Office on Economic Development, the Mink Center for Business & Leadership, Hawaii Small Business Development Center, U.S. Small Business Administration, and Chamber of Commerce Hawaii.



- **HART "OPEN FOR BUSINESS" AND ACCESS SIGNAGE PROGRAM**
HART offers businesses along the alignment outdoor signage assistance when visual access, parking or accessibility is affected by construction.

To learn more about these HART Business Outreach Programs, contact us by calling our 24-hour Project Hotline at (808) 566-2299 or email info@HonoluluTransit.org.

SIGN-UP TO JOIN HART'S BUSINESS ALLIANCE PROGRAM

Area businesses can sign-up to join HART's City Center Business Alliance Program to receive regular traffic updates, business community meeting notifications, and information on special business outreach programs.

Signing up online is easy. Just visit the website www.HARTBusinessAlliance.com and fill out our online contact form or call HART's 24-hour Project Hotline at (808) 566-2299.

COMMUNITY STAKEHOLDER ENGAGEMENT



Community stakeholder engagement is an important aspect of the Honolulu Rail Transit Project's outreach as construction progresses throughout the 20-mile alignment from West Oahu to Ala Moana Center. The project's Public Involvement division conducts outreach to a variety of community stakeholders to keep them informed with updated construction information, assist small businesses with specialized outreach programs, mitigate construction impacts, and to educate future riders on the system.



COMMUNITY EVENTS

HART participates in a number of consumer shows and community events throughout the year to educate residents about their future rail system. Educational displays, interactive activities, video simulations of the 20-mile alignment and stations, train and station models, and outreach staff are featured at each event.

BUSINESS OUTREACH

HART works with small businesses with a variety of outreach programs, promotional partnerships, "open for business" signage programs, and important resource partners to assist when construction impacts are experienced.

STAKEHOLDER ENGAGEMENT

Keeping community stakeholders engaged and up-to-date with construction progress and project milestones is very important. Special stakeholder presentations are regularly made to businesses, landowners, property managers, business groups, building homeowner associations, and community groups/organizations. If your group would like to schedule an update presentation with HART, please call HART's 24-hour project hotline at (808) 566-2299.



EDUCATIONAL OUTREACH

Connecting with area schools situated along the 20-mile alignment allows the project to engage with future riders and educate them on the benefits of mass transportation. The project

has programs to engage with elementary, middle school, high school and college level students.



CONSTRUCTION NOTIFICATION & MONTHLY COMMUNITY MEETINGS

HART and its construction contractors regularly canvass the community and notify area residents and businesses of upcoming work. The project also hosts a number of monthly community meetings throughout the alignment. One of the best ways to keep updated on weekly construction work and monthly meetings is to sign-up for HART's weekly eBlast email update. To sign-up, visit www.HonoluluTransit.org or call HART's 24-hour project hotline at (808) 566-2299.



HOLO – GO ANYWHERE

Oahu's First Smart Transit Card



The HOLO Card is Oahu's first transit smart card. In the near future, passengers on TheBus, The Handi-Van and the Honolulu rail transit system will use it to pay their fares and "GO ANYWHERE", while moving seamlessly between and among the island's public transportation services. The City will soon launch a pilot program to begin testing the HOLO Card on its bus fleet.

The HOLO Card allows transit riders to simply tap their cards at a HOLO Card reader each time they board TheBus and TheHandi-Van or in the future when they enter a rail station. Each tap debits a user's card account with an associated fare cost. Fares will be determined by the members of the City's Rate Commission.

In addition to regular Adult fare cards, plans call for there to be discounted fares for certain other groups such as seniors, youth and students, as well as passengers with disabilities.

When implemented, public transportation customers will be able to monitor their HOLO Card balances and reload card values online by visiting www.HOLOCard.net, by using your

Smart Phone, or by accessing one of the fare vending machines which will be located at the rail system's 21 rail stations.

In addition, cards will be able to be purchased and reloaded at more than 100 participating stores in HOLO Card retail network all across Oahu, at Satellite City Hall locations, or at TheBus Customer Services Center.

One of the best features of HOLO Card is that your money is protected in the event that your card is lost or stolen. What's more is that managing the HOLO Card is easy and comes with many advantages, including:

- Registered card and account protection for lost or stolen cards
- Reload and purchase passes and card values online
- Set up an auto-load so your card balance never runs out
- Easily manage multiple cards for your family or group

You'll be able to learn more information about Honolulu's HOLO Card when you visit www.HOLOCard.net or call (808) 768-HOLO (4656).



STAY CONNECTED



HonoluluRailTransitProject



@HonoluluRailTransit



@HNL_RTD



@Honolulu_Rail_Transit

STAY IN TOUCH



For questions, comments or more information, speak with a representative by calling our 24-hour project hotline at (808) 566-2299



Email us your questions, comments or concerns at info@HonoluluTransit.org



Check for weekly traffic updates for rail construction activities that affect your area by visiting the project website at www.HonoluluTransit.org

HART QR CODE



The Honolulu rail transit project's new QR Code (Quick Response Code) that connects individuals with iPhones and smart phones to the project's website.

HART

HONOLULU AUTHORITY for RAPID TRANSPORTATION

24-HOUR PROJECT HOTLINE
(808) 566-2299
WWW.HONOLULUTRANSIT.ORG

Printed as of April 2018.
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www.HOLOCard.net